

U4HFX	Unbundled Business Loop Customer Specified Signaling 4-Wire Loop Start Closed End	Verizon-North
U4HEX	Unbundled Business Loop Customer Specified Signaling 4-Wire Loop Start Open End	Verizon-North
U4HNX	Unbundled Business Loop Customer Specified Signaling 4-Wire No Signaling	Verizon-North
U4HJX	Unbundling Business Loop Customer Specified Signaling 4-Wire Reverse Battery Terminating End	Verizon-North
U4HKX	Unbundling Business Loop Customer Specified Signaling 4-Wire Reverse Battery Originating	Verizon-North
U2KZX	Unbundling Business Loop Customer Specified Signaling Unbundled P-Phone Loop	Verizon-North
U2CFX	Unbundling Business Loop Customer Specified Signaling Unbundled Coin Loop	Verizon-North

NOTE: The fourth or fifth character may be represented by a + or ++, and these suffixes reflect different geographic rate zones as designated in tariffs, and to allow for different pricing. UBN, a class of service USOC, is unique to Verizon-South because of the difference in the ordering, provisioning, and billing systems between Verizon North and Verizon South.

Interval

In Verizon South, the interval to provision 1-10 customer specified loops is 6 business days, and the interval for 11-20 loops is 10 business days.

The interval to provision 21 or more loops is negotiated between the CLEC and the Verizon National Market Center. In Verizon-North, the interval to provision 1-5 customer specified loops is 6 business days, and the interval for 6-9 loops is 12 business days. The interval to provision 10 or more loops is negotiated between the CLEC and the Verizon National Market Center.

2.3.3 Digital Loops

2.3.3.1 2-Wire Digital - ISDN BRI

Product

2-Wire Digital - ISDN BRI

Product Family

Loop Unbundling

Product Description

This service provides a digital 2-wire enhanced channel. It is equivalent to a 2-wire loop less than 18,000 feet from the NID at the end user's premises to the main distributing frame (which is connected to the CLEC's collocation arrangement) in the Verizon central office in which the end user is served. The 2-wire Digital - ISDN BRI loop, currently offered by Verizon, is designed to support the Integrated Services Digital Network (ISDN) Basic Rate Service, which operates digital signals at 160 kilobytes per second (Kbps). The 2-wire Digital - ISDN BRI loop is only available to the CLEC for use in conjunction with the provision of local exchange service and exchange access to its end users.

The primary difference between a basic analog loop and a 2-wire Digital - ISDN BRI loop is that the latter is qualified to support basic rate ISDN. Generally, metallic loops are capable of meeting the requirements if they are less than 18,000 feet long and have transmission characteristics as described in the technical description below. Verizon will determine

Another significant difference between analog and digital loops is that while analog loops can be provided to virtually any end user, digital loops cannot. Qualified loops may not be available at each end user's location. For example, all existing loops in New York City are not ISDN capable. The loop facility assigned will be of a length that is not affected by load coils/bridge taps, thus allowing for the "element" to be ISDN capable. To determine the availability of 2-wire Digital - ISDN BRI loops in Verizon North, the CLEC may access the Verizon Web GUI loop qualification function, categorized under pre-order functions. For migration, current ISDN services do not require qualification. If requesting to upgrade an existing loop, the CLEC may want to verify loop qualification. Verizon South will provide a 2-wire Digital - ISDN BRI loop to most locations. Future offerings in Verizon South may provide access to a loop qualification database.

Technical Description

10. *Reference:* 1. <http://www.1001books4kids.com/handbook/subjects> 2/6/2007 2:10pm

extending from the central office Main Distributing Frame (MDF) to the end user's location. Figure 2.3.9 below depicts the 2-wire copper loop (CKL 1 is the CLEC's collocation arrangement and CKL 2 is the end user's address).

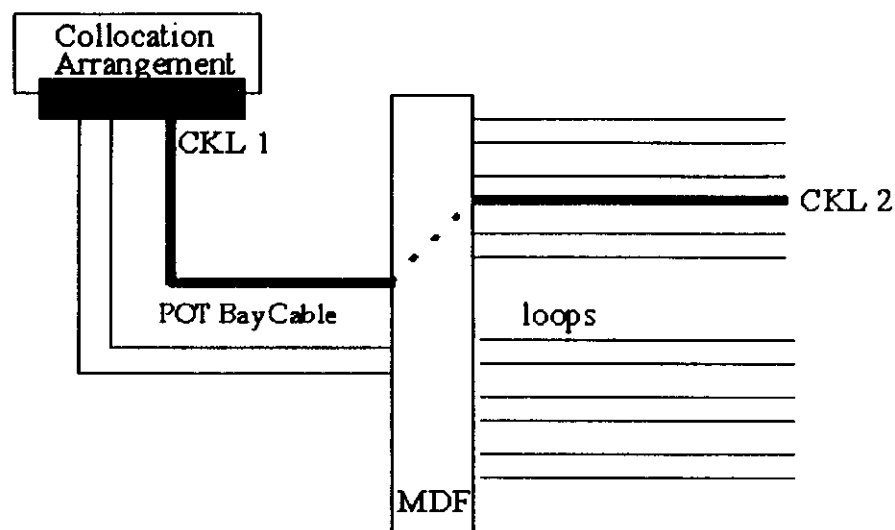


Figure 2.3.9: 2-Wire Digital Copper Loop

The second option uses a combination of a Universal Digital Loop Carrier and a twisted pair to reach the end user. Figure 2.3.10 below depicts the 2-wire digital loop provided on a universal digital loop carrier (CKL 1 is the CLEC's collocation arrangement and CKL 2 is the end user's address).

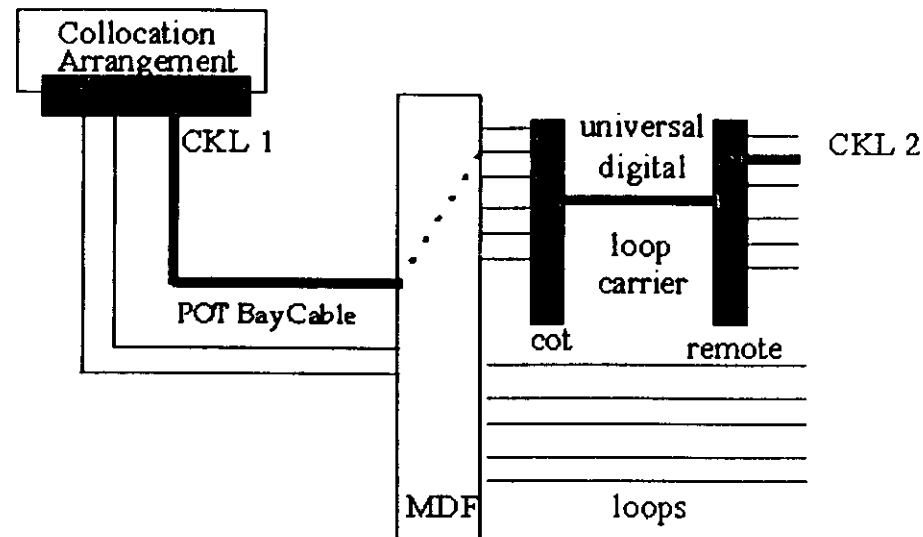


Figure 2.3.10: 2 - Wire Digital - ISDN BRI Digital Loop on Universal Loop Carrier

Note that Figures 2.3.9 and 2.3.10 depict cables emanating from collocation arrangements that terminate on the MDF. An unbundled 2-wire Digital - ISDN BRI loop can be interconnected with a CLEC network through either a physical or virtual collocation arrangement. The 2-wire digital loop may also be used in providing UNE-Platform for ISDN-BRI service, where offered, in which case it will have an associated port rather than a collocation arrangement in the Verizon central office.

When a CLEC orders a 2-wire digital - ISDN BRI loop, it must specify an end user location as well as a particular pair on a physical collocation arrangement cable. An appropriate pair appearing at the end user location is assigned and cross-connected to the requested physical collocation arrangement pair at the MDF. Verizon will determine the facilities on which to provision 2-wire digital loops at its sole discretion. An MDF interconnection precludes the use of integrated Digital Loop

Carrier.

2-wire Digital - ISDN BRI loops must be provided on non-loaded facilities, and cannot be provisioned if the facilities have bridge taps in place. 2-wire Digital - ISDN BRI loops are 2-wire applications that require one pair to support service provisioning.

Due to the unique transmission requirements, service availability is further limited to those end user locations where suitable facilities exist. The CLEC's request for unbundled 2-wire digital - ISDN BRI loop must conform to the existing ISDN service availability limitations. Therefore, 2-wire digital - ISDN BRI unbundled loops are only available where loops conform to transmission specifications that support ISDN service.

Pricing Information

Non-recurring charges are billed for service orders, service connections (other charges), central office wiring (if applicable), installation dispatches (if applicable), and manual interventions (if applicable). Additional non-recurring charges are assessed per day for expedited orders. There are recurring, monthly charges for 2-wire digital loops and DS0 service access. There is a specific USOC for premium 2-wire loops. Network Channel (NC) codes and Network Channel Interface (NCI) codes are required for all orders except migrations ("as is") in New York.

Pricing and applicable USOCs may vary by state jurisdiction and pursuant to individual carrier interconnection agreements.

USOCs

The following table identifies the USOCs pertaining to premium loops.

USOC	Description	Jurisdiction
SP1LM	Service Access Charge (SAC)	Verizon-North

	DSO	
CXUOB	IAC DSO	Verizon-North
2NL	Per Loop - Density Zone	Verizon-North
EODCB	Service Order Charge Expedited: 1 Loop	Verizon-North
EODCD	Service Order Charge Expedited: 2-9 Loops	Verizon-North
EODCE	Service Order Charge Expedited: 10 or more Loops	Verizon-North
NR9U5	Manual Intervention Charge: 1 Loop	Verizon-North
NR93O	Manual Intervention Charge: 2- 9 Loops	Verizon-North
NR93P	Manual Intervention Charge: 10 or More Loops	Verizon-North
EODCF	Manual Intervention Charge Expedited: 1 Loop	Verizon-North
EODCG	Manual Intervention Charge Expedited: 2-9 Loops	Verizon-North
EODCH	Manual Intervention Charge Expedited: 10 or More Loops	Verizon-North
NR9UN	CLEC Not Ready Per Occurrence - In	Verizon-North
NR9UF	CLEC Not Ready Per Occurrence - Out	Verizon-North
NR9GN	Facility Type Channel or Pair & Resistance Range (Per Loop)	Verizon-North
NR9GP	Dispatch Out Maintenance Charge	Verizon-North (New England)
ULB2X	Per Loop - (Density Zone)	Verizon-North
SP1LP	SAC 2W Voice Grade	Verizon-North
SP1LQ	SAC 4W Voice Grade	Verizon-North

NR9GP	Dispatch Out - Maintenance	Verizon-North (New England)
EODCJ	Service Connection Central Office Wiring	Verizon-North
EODCK	Service Connection - Other	Verizon-North
EODCL	2-Wire Digital Loop Charge Expedited: 1 Loop	Verizon-North
EODCM	2-Wire Digital Loop Charge Expedited: 2-9 Loops	Verizon-North
EODCN	2-Wire Digital Loop Charge Expedited: 10 or More Loops	Verizon-North
EODCO	Trouble Dispatch Misdirect - In	Verizon-North
EODCP	Trouble Dispatch Misdirect - Out	Verizon-North
UBN	Unbundling Class of Service	Verizon-South
UA1X+	Unbundled Business Loop ISDN	Verizon-South
UEC++	Unbundled Cross Connect	Verizon-South

NOTE: The fourth or fifth character may be represented by a + or ++, and these suffixes reflect different geographic rate zones as designated in tariffs, and to allow for different pricing. UBN, a class of service USOC, is unique to Verizon South because of the difference in the ordering, provisioning, and billing systems between Verizon North and Verizon South.

Interval

The interval to provision 1-12 new/migrated 2-wire Digital - ISDN BRI loops is typically 11 business days in Verizon North for copper loops under 18 kilofeet. The interval to provision 13 or more new 2-wire digital - ISDN BRI loops is negotiated between the CLEC and the Verizon North National Market Center. The interval to migrate existing 2-wire Digital - ISDN BRI loops is the same as the interval for basic

analog loops. In Verizon South, the time to provision platform service is 6 business days for 1-10 loops, and 10 business days for 11-20 loops. The time to provision 21 or more loops in Verizon South is negotiated.

To provision port service in Verizon South, the interval is 5 business days for 1-5 loops (20 business days in DE), and is negotiated between the National Market Center and the CLEC for more than 6 loops.

These intervals assume the loops are already properly conditioned when ordered.

2.3.3.2 DS1 Loop

Product

4-Wire Digital - DS1

Product Family

Loop Unbundling

Product Description

This service provides a digital high-capacity capable loop on a two-point digital channel that allows simultaneous two-way transmission of serial, bipolar, return-to-zero, isochronous digital signals at a speed of 1.544 Mbps +/-32ppm.

DS1 loops provide a connection from and including the NID at the end user's premises to a point of interconnection at the EEL arrangement (where Verizon makes such arrangements available) or at the point of interconnection at the POT bay at the CLEC's collocation presence in the Verizon central office where the end user is served.

This element is only available to the CLEC for use in conjunction with its provision of local exchange and associated exchange access service to its end users.

Technical Description

A digital high-capacity loop provides a two-point digital channel, which provides for simultaneous two-way transmission of digital electrical signals at a transmission rate of 1.544 Mbps +/-32ppm.

The DS1 loop carries digital signals at the rate of 1.544 Mbps between an end user location and a CLEC collocation arrangement (see Figure 2.3.11 below) or EEL arrangement (where Verizon makes such arrangements available) located in a Verizon central office. An unbundled digital DS1 high-capacity loop can be interconnected with a CLEC network through a physical or virtual collocation arrangement, or onto an EEL arrangement (where offered).

The provisioning flow is a designed flow involving a Verizon Operations Support System (OSS). A circuit identification in Circuit Location Serial (CLS) format is used to identify the unbundled element. The A and Z of the circuit is the Common Language Location Identifier (CLLI) of the CLEC collocation arrangement and the CLLI of the end user location respectively.

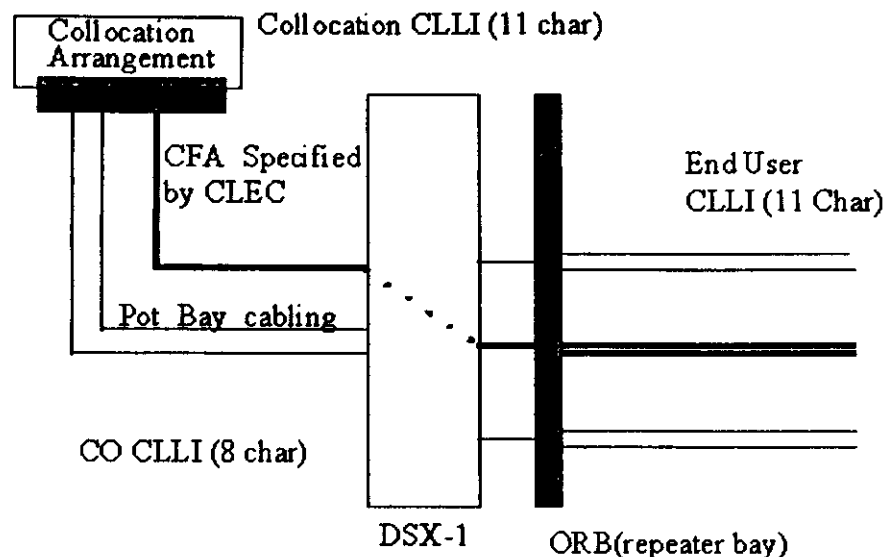


Figure 2.3.11: DS1 (1.5 Mbps) Loop

The interface at the CLEC DSX-1 termination in the Verizon central office is 4-wire, and the interface at the end-user NID is 4-wire. The conductors of the CLEC or end user transmit pair are called tip and ring and the conductors of the CLEC or end user receive pair are called tip 1 and ring 1.

The transmission channel between the DS1 interfaces consists of 4-wire facilities. DS1 is provided using a variety of loop transmission technologies including metallic cable facilities with or without repeaters or fiber optic transport systems.

The DS1 loop enables full duplex 1.544 Mbps digital transmission. The 1.544 Mbps line rate supports an 8 Kbps framing format and 1.536 Mbps of payload data. The DS1 loop supports either the Superframe (SF) or Extended Superframe (ESF) framing formats as specified in ANSI T1.403-1995 [4].

The DS1 loop is available with either the AMI or B8ZS line codes as specified in ANSI T1.403-1995 [4]. The DS1 loop provides an electrical DS1 interface at the RDP that meets the network requirements in ANSI T1.403-1995 [4].

The DS1 interface provided by Verizon does not ordinarily deliver direct-current power to the NID via the simplex leads of the transmit and receive pairs. However, when Verizon employs metallic facilities and no loopback device is deployed, direct-current power may appear at the NID on the simplex leads of the transmit and receive pairs. In such cases, the CLEC or end user equipment must provide a direct-current connection between the simplexes of the transmit and receive pairs.

In addition, customer equipment shall not apply voltages to the End User-Point of Termination (EU-POT) other than those described in ANSI T1.403-1995.

The CLEC is responsible for providing synchronization timing for the DS1 loop. The DS1 loop is only available to the CLEC for use in conjunction with its provision of local exchange and exchange access service to its end users.

Ordering Information

The DS1 UNE Loop can be ordered via the ASR in Verizon North and Verizon South. For more information on how to complete the ASR, please see the ASR Business rules:

http://128.11.40.241/east/wholesale/customer_docs/master.htm

Pricing Information

Non-recurring charges are billed for service orders, service connections (other charges), central office wiring (if applicable), installation dispatches (if applicable), and manual interventions (if applicable).

There are also non-recurring charges for conditioning of DS1 Loop,

CLEC Not Ready - In and Out and Trouble Dispatch Misdirect - In and Out. Additional non-recurring charges are assessed per day for expedited orders as applicable.

1. Non-Recurring charge applied only once to the CABS Collocation bill when a Virtual Collocation arrangement is installed in a Verizon central office. Monthly Recurring charge applied to a UNE bill starting when a particular UNE (DS1 loop) is connected to the Virtual Collocation arrangement.
2. There are recurring, monthly charges for the high capacity 1.544 Mbps loop. In addition, cross-connect charges apply. Network Channel (NC) and Network Channel Interface (NCI) codes are required for all orders.

Pricing and applicable USOCs may vary by state jurisdiction and pursuant to individual carrier interconnection agreements.

USOCs

The following table identifies the USOCs pertaining to DS1 Loop.

USOC	Description	Jurisdiction
ULCIX	Unbundled Distribution Channel Fixed Rate	Verizon-North
SP1LR	SAC DS1	Verizon-North
NR9UN	CLEC Not Ready - In	Verizon-North
NR9UF	CLEC Not Ready - Out	Verizon-North
EODCO	Trouble Dispatch Misdirect - In	Verizon-North
EODCP	Trouble Dispatch Misdirect - Out	Verizon-North
NR93M	Service Order Charge	Verizon-North
EODCB	Service Order Charge Expedited	Verizon-North
NR93Q	Service Connection - Other	Verizon-North

EODCK	Service Connection - Other Expedited	Verizon-North
NR93S	Install Dispatch: 1 Loop	Verizon-North
NR93T	Install Dispatch: 2-10 Loops	Verizon-North
NR93U	Install Dispatch: More Than 10 Loops	Verizon-North
NR9U5	Manual Intervention	Verizon-North
EODCF	Manual Intervention - Expedited	Verizon-North
NR93R	Service Connection - Central Office Wiring	Verizon-North
EODCJ	Service Connection - Central Office Wiring Expedited	Verizon-North
CXUDA	IAC (Interconnection Access Charge) - DS1 (Virtual Collocation) monthly charges	Verizon-North
SP1LR	SAC	Verizon-North
NRBHX	IAC 1.544mbps/DS1 (Virtual Collocation)	Verizon-North
XUC1X	Physical Class of Service	Verizon-North
XUH1X	Virtual Class of Service	Verizon-North
U4D1X	DS1 Loop Channel Termination	Verizon-South
UCXHP	Unbundled Physical Cross Connect	Verizon-South
UCXHV	Unbundled Virtual Cross Connect	Verizon-South
UCXXC	Unbundled Cageless Cross Connect	Verizon-South
UL6HP	Unbundled Physical Cross Connect Per Ft-WV only	Verizon-South
UL6HV	Unbundled Virtual Cross Connect Per Ft-WV only	Verizon-South

UKCXC	Unbundled Cageless Cross Connect Per Ft-WV only	Verizon-South
SPICS	Unbundled Physical Cable Rack-WV only	Verizon-South
NRBU5	Unbundled Service Order Charge	Verizon-South
NR9U6	Unbundled Expedite Charge	Verizon-South
REAK4	Unbundled Date Due Change Charge	Verizon-South
REAK5	Unbundled Design Change Charge	Verizon-South
REAK6	Unbundled Re-arrangement Charge	Verizon-South
XUH1X	Class of Service	Verizon-South

NOTE: The fourth or fifth character may be represented by a + or ++, and these suffixes reflect different geographic rate zones as designated in tariffs, and to allow for different pricing in Verizon North.

Interval

In Verizon North, the interval to provision 1-9 DS1 loops is 9 business days where facilities exist. For 10+ loops the interval is negotiated and where facilities do not exist it is the ECCD + 6 business days.

In Verizon-South, the interval to provision 1 - 10 loops where facilities exist is 13 business days. For 11+ loops the interval is negotiated. Where no facilities exist the interval is the ECCD + 10 business days.

2.3.3.3 DS3 Loop

Product

DS3 Loop - North and South

Product Family

Loop Unbundling

Product Description

A DS3 loop provides a two-point digital channel which provides for simultaneous two-way transmission of serial, bipolar, return-to-zero isochronous digital electrical signals at a rate of 44.736 Mbps + 20 ppm.

The DS3 Loop provides a connection from a NID at the end user's premises to a point of interconnection at the POT Bay at the CLEC's collocation presence in the Verizon central office where the end user is served, or to an EEL, where offered.

This element is only available to the CLEC for use in conjunction with its provision of local exchange and associated exchange access service to its end users.

Technical Description

The DS3 loop carries digital signals at the rate of 44.736 Mbps + 20 ppm between an end user location and a CLEC collocation arrangement located in a Verizon central office (see Figure 2.3.12 below). An unbundled DS3 loop can be interconnected with a CLEC network through either a physical or virtual collocation arrangement.

The provisioning flow is a designed flow. A circuit identification in Circuit Location Serial (CLS) format is used to identify the unbundled element. The A and Z of the circuit is the Common Language Location Identifier (CLLI) of the CLEC collocation arrangement and the CLLI of the end user location respectively.

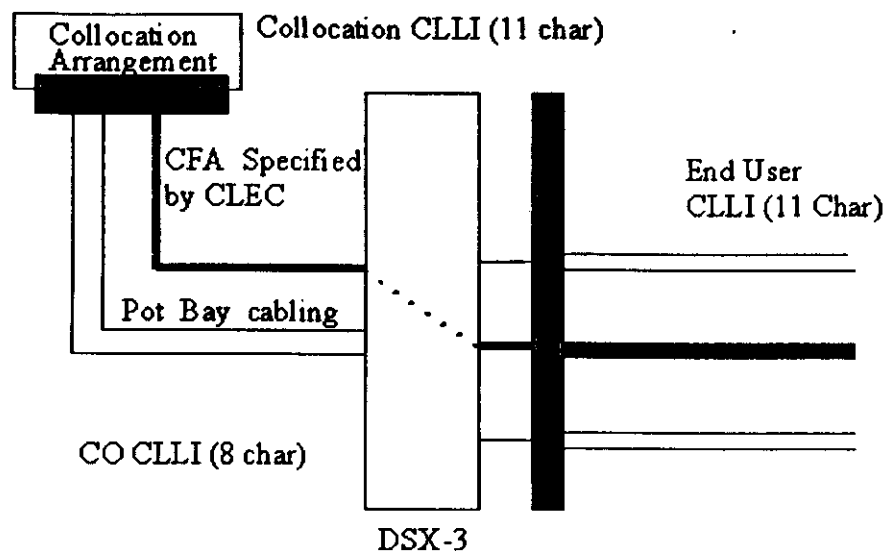


Figure 2.3.12: DS3) Loop

Ordering Information

The DS3 UNE Loop can be ordered via the ASR in Verizon North and Verizon South. For more information on how to complete the ASR, please see the ASR Business rules:

http://128.11.40.241/east/wholesale/customer_docs/master.htm.

Pricing Information

Non-recurring charges are billed for service orders, service connections (other charges), central office wiring (if applicable), installation dispatches (if applicable), and manual interventions (if applicable). Additional non-recurring charges are billed per day for expedited orders as applicable.

There are recurring, monthly charges for the DS3 loop, fixed (per 1/4 mile) and DS3 Service Access (SAC) in Verizon North only. There are two class of service USOCs for residential and business service (in

Verizon-North the class of service is based on Physical vs. Virtual collocation). NC-NCI codes are required to order this service.

The SAC is the same USOC as for any other physical collocation DS3 cross-connect, in New York and New England. The Interconnection Access Charge (IAC) is the same as a DS3 cross-connect for virtual collocation in New York and New England.

Pricing and applicable USOCs may vary by state jurisdiction and pursuant to individual carrier interconnection agreements.

USOCs

The following table identifies USOCs pertaining to DS3 Loop.

USOC	Description	Jurisdiction
ULC3X	Unbundled Distribution Channel Fixed Rate	Verizon-North
ULO5A	Unbundled Distribution Channel Per ¼ Mile or Fraction Thereof	Verizon-North
SP1LS	SAC	Verizon-North
NRBHY	IAC 45mbps/DS3	Verizon-North
CXUEA	IAC 45mbps/DS3	Verizon-North
U4D3X	Unbundled DS3 Loop Channel Termination	Verizon-South
UCXJP	Unbundled Physical Cross Connect DS3	Verizon-South
UCXJV	Unbundled Virtual Cross Connect DS3	Verizon-South
UCXXC	Unbundled Cageless Cross Connect DS3	Verizon-South
UL6JP	Unbundled Physical Cross Connect Per Ft-WV only	Verizon-South

UL6JV	Unbundled Virtual Cross Connect Per Ft-WV only	Verizon-South
UKCXC	Unbundled Cageless Cross Connect Per Ft-WV only	Verizon-South
SPICT	Unbundled Physical Cable Rack-WV only	Verizon-South
NRBU5	Service Order Charge	Verizon-South
NR944	Initial Dispatch - DS3	Verizon-South

Interval

For both the North and South, the interval to provision DS3 loops for 1 - 9 loops is 18 business days, which includes a 3 business day facility check. For 10+ loops the interval is negotiated and where facilities do not exist the interval is ECCD +15 business days.

2.3.4 Verizon Facilities**Reuse of Facilities**

Verizon will reuse the customer's existing facilities, where it is technically feasible and where the current loop supports the CLEC's transmission requirements.

No Facilities (New York Only)

- Verizon will provide notification to the CLEC when a no facilities condition has been identified.
- The initial notification to the CLEC will be a call.
- If Verizon has identified when facilities will be available to provision the element, the new due date will be provided on the call.
- If the due date provided to the CLEC is not suitable, the CLEC must call the National Market Center Representative (noted on Confirmation Notice) to negotiate a new date suitable to the

CLEC/End-User.

- In the event a due date is not established at the time of initial notification, Verizon will provide an estimate within 3 days to the CLEC as to when facilities are expected to be available and Verizon will provide the requested unbundled network element.
- All information regarding the unavailability of facilities will be routed to the CLEC via the Open Query System (OQS) Report.

AML (New York Only)

- AML facilities enable Verizon to provide two (2) voice channels over a pair of wires when new construction is not practical in provisioning an additional pair for POTS Service.
- There are existing AMLs in New York City.
- AML will provide voice capability only and is not intended for data transmission.
- ISDN will not work through AML.
- AML can support basic Voice Grade (VG) service as defined in the 900 Tariff for POTS Service.
- Verizon will provide the CLEC with the appropriate transmission levels ordered for the specific UNE loop.
- The CLEC is responsible for assuring that the proper unbundled loop specifications meet the end user requirements for the service to be provided by the CLEC.
- If the CLEC requests migration of a customer to an applicable UNE-P arrangement "as is," Verizon will not reassign even if currently served via AML.
- When a service order is issued on a migration of service to a UNE loop (non-platform) (from Verizon to the CLEC) at the Assignment Step, Verizon will identify if the existing facility is AML.
- Once the AML has been identified, Verizon will provide a new assignment removing the existing AML facility for the loop.

Verizon does not maintain an existing file identifying areas where there are facilities constraints or where AMLs are deployed.

2.3.5 ADSL And HDSL Compatible Unbundled Loops

Introduction

Digital Subscriber Line (DSL) is an emerging technology that is being developed and deployed in response to increasing user bandwidth demands. Lines equipped with DSL technology provide high-speed digital data transmission over copper lines, and differ from ordinary phone lines in terms of the communications speeds, operating distances and suitable applications. There are several variants of DSL technology in the marketplace today. ADSL and HDSL are two variants currently deployed for use in Verizon's network.

Verizon has recently begun making available three unbundled loop products: ADSL 2-Wire, HDSL 2-Wire, and HDSL 4-Wire Compatible Unbundled Loops - that are compatible with ADSL and HDSL technologies. The necessary information for ordering these loop types is being provided here. Several aspects of these products are currently under development and/or are being modified due to needs identified internally and externally and due to the on-going development of national standards by National Standards Bodies Organizations for ADSL. As changes/modifications are made, this material will be updated and re-distributed.

Loop Qualification

Because DSL technologies can be incompatible with some pre-existing loop conditions and are subject to other technical limitations, Verizon cannot identify an existing loop as being compatible with ADSL or HDSL technology without first undertaking to qualify each loop according to predetermined parameters. This qualification process is done on either a mechanized or manual basis.

Since Verizon does not deploy other DSL technologies in its network, it tests for compatibility with ADSL and HDSL technologies only. The loops are qualified for ADSL/HDSL based on the specifications outlined in the Verizon Technical Requirements, available at http://128.11.40.241/east/wholesale/products_services/master.htm

Mechanized Loop Qualification

In a mechanized loop qualification, all the loops in a particular central office are tested and examined for ADSL and HDSL compatibility on a mechanized basis. As loops in that central office are pre-qualified, the results are stored in a mechanized database. This database will be accessible by the CLECs and the Verizon Retail Sales Channels through the Verizon Web-GUI or EDI.

The procedures used for access via the Verizon Web GUI or EDI are available on the Wholesale Markets WEB site:

http://128.11.40.241/east/wholesale/customer_docs/master.htm.

At this site, the following guides are available:

- Verizon EDI Guide for Local Service Requests and Pre-Order Inquiries
- Wholesale Markets Graphical User Interface (GUI) User Guide
- Business Rules and the Verizon Mechanized Specifications for Local Service Request (LSR)

Verizon is in the process of conducting mechanized loop testing in a large number of selected central offices within its service area. CLECs are encouraged to provide Verizon Wholesale Markets with volume forecasts for ADSL and HDSL loop requirements so that central offices that are projected to have high demand for ADSL and HDSL loops can be pre-qualified on a mechanized basis at the earliest feasible date.

Central offices which have been pre-qualified to date are available on the Wholesale Markets Web Site at:

http://128.11.40.241/east/wholesale/products_services/master.htm.

The Central Office information available on this site will be updated every two weeks.

The mechanized pre-qualification database will contain information pertaining to a specific loop by TN or by a specific address. Once the CLEC enters the current TN, another working service at a particular location, or a specific address, the database will return loop qualification information. (Address functionality in NY and MA is scheduled to come on line in April, 1999.)

Manual Loop Qualification

In areas of the state where a CLEC is interested in ADSL or HDSL loops, but the CO(s) has not been pre-qualified on a mechanized basis, pre-qualification can be obtained through a manual process. In this case, the CLEC submits an LSR to the National Market Center. A remark needs to be added by the CLEC to the LSR requesting a manual loop qualification. The National Market Center will obtain, through multiple departments, the loop qualification information, and will return the information to the CLEC in the same manner that it was received (i.e., if faxed, then the National Market Center will fax the results; if sent electronically, then the results will be sent electronically). Due to the amount of work involved on manual qualifications, the pre-qualification process to qualify a loop for ADSL/HDSL takes five business days.

For both mechanized pre-qualification and manual qualification of a loop, qualification charges will apply.

When the ADSL loop is ordered in Verizon North, a remark is required on the LSR requesting a 12,000 FT or an 18,000 FT ADSL loop. When the

ADSL loop is ordered in Verizon South, unique USOCs have been developed for the 12,000 FT offering and for the 18,000 FT offering. A remark on which ADSL UNE loop being requested is not needed in Verizon-South.

2.3.5.1 ADSL Compatible Unbundled Loops 2-Wire

Product

ADSL Compatible Unbundled Loop 2-Wire

Product Family

Loop Unbundling

Product Description

The Asymmetrical Digital Subscriber Line (ADSL) Compatible Loop is a loop facility extending from the Central Office Distribution Frame (MDF) to the end user Customer Premises Network Interface Device, that is compatible with ADSL technology allowing concurrent transmission of high speed data communications and POTS. At this time, ADSL can only be supported on copper facilities that meet certain design criteria. For example, the facilities must be within the maximum loop length(s) established, and they must meet other ADSL requirements such as limited bridge taps and no T-carrier interfaces.

This unbundled network element is provisioned from the end user's address to either a physical collocation node in the central office or to a virtual collocation arrangement in the serving central office. ADSL loops are not supported on Enhanced Extended Loop (EEL) backbone facilities.

Technical Description

The Unbundled ADSL loop provides an effective 2-wire channel that is suitable for the transport of POTS as well as Asymmetrical Digital Subscriber Line (ADSL) signals.

ADSL Loop Limitations

- The facility must be copper.
- The cable shall be non-loaded.
- The total length of all bridge taps shall be less than 6 kft.
- The total length of the cable shall be less than 18 kft.
- The total length of the cable plus the bridge tap length shall not exceed 18 kft.
- The direct current resistance of the loop shall be 1300 ohms or less.
- Loaded bridge tap is not permitted.
- ADSL is not included in UNE Platform/EEL offerings.
- ADSL Compatible Loops cannot currently be provisioned over loop facilities where DLC/Remote Terminals are connected to customer premises.

NOTE: CLEC equipment placed on the end of the loop could affect performance of the loop if the equipment added is outside of the technical parameters specified.

The 2-Wire ADSL interface at the Central Office Distributing Frame termination is 2-wire and the interface at the EU-POT is 2-wire. If a single circuit network interface jack is provided at the EU-POT, an RJ11C connector will be used. One conductor of the pair is called tip and the other is called ring. This loop is suitable for the transport of Discrete Multi-Tone (DMT) or Carrierless AM/PM (CAP) signals at rates up to 1.5 Mbps downstream (towards the EU-POT) and up to 176 Kbps upstream (from the EU-POT). The data rate achieved on a particular ADSL 2-Wire loop depends upon the performance of the customer-provided modems and upon the electrical characteristics (length, bridge tap, noise, etc.) associated with the loop. As a result of the two technologies supported, Discrete Multi-Tone (DMT) and Carrierless AM/PM (CAP), there will be specific Network Channel Interface (NCI) codes associated with each of the technologies. This information is provided below.